

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of the claims in the application:

1. (Currently amended) A method of reducing the peak-to-average power ratio (PAPR) of a modulated baseband signal, wherein the baseband signal is constituted by a waveform function modulated by information-carrying symbols transmitted in parallel, the method comprising the steps of:

detecting peaks in the modulated baseband signal that exceed a threshold (C), and generating a pulse sequence signal (p[m]) therefrom; and

applying a pulse sequence shaping to filter the pulse sequence signal for generating a peak-cancellation signal (c[m]); wherein the pulse sequence shaping is designed such that its pass-band is limited to a frequency-domain gap between the edge of an information-carrying frequency bandwidth of the modulated baseband signal and an edge of a frequency band for the baseband signal defined by a spectral mask specifying a maximum tolerable out-of-band emission.

2. (Cancelled)

3. (Currently amended) The method of ~~claim 2~~ Claim 1, including further comprising oversampling of the modulated baseband signal prior to the peak detection detecting step.

4-7. (Cancelled)

8. (Currently amended) The method of ~~claim 4~~ Claim 1, wherein further comprising subtracting the peak-cancellation signal ~~is subtracted~~ from the modulated baseband signal to produce a reduced-PAPR modulated baseband signal ( $\hat{s}'[m]$ ).

9. (Currently amended) The method of ~~claim 5~~ Claim 3, wherein further comprising subtracting the peak-cancellation signal is subtracted from the modulated baseband signal to produce a reduced-PAPR modulated baseband signal ( $\hat{s}'[m]$ ).

10. (Currently amended) A transmitter comprising:  
a baseband signal generator ~~for generating~~ operable to generate a digital baseband signal ( $\hat{s}[n]$ ) from an input data stream;

a digital-to-analogue converter ~~for converting~~ operable to convert the digital baseband signal into an analogue baseband signal ( $s[t]$ ) prior to output by a transmitter stage [TX];

an oversampling filter arranged between the baseband signal generator and digital-to-analogue converter ~~for oversampling~~ operable to oversample the digital baseband signal ~~and thus generating~~ to generate an oversampled digital baseband signal ( $\hat{s}[m]$ );

a signal divider ~~for splitting~~ operable to split the oversampled digital baseband signal into first and second parts;

a peak detector arranged to receive the first part of the oversampled digital baseband signal as input and ~~configured~~ operable to output a pulse sequence signal ( $p[m]$ ) containing a pulse for each peak in the oversampled digital baseband signal that exceeds a threshold level ( $C$ );

a pulse shaping filter ~~for receiving~~ operable to receive the pulse sequence signal and ~~converting~~ convert it into a filtered clipping signal ( $c[m]$ ) having a pass-band limited to a frequency-domain gap between an edge of an information-carrying frequency bandwidth of the modulated baseband signal and an edge of a frequency band for the baseband signal defined by a spectral mask specifying a maximum tolerable out-of-band emission; and

a signal combiner ~~for subtracting~~ operable to subtract the filtered clipping signal from the second part of the oversampled digital baseband signal ~~so as to produce a digital baseband signal ( $\hat{s}'[m]$ ) with reduced PAPR which is routed to input into~~ for input to the digital-to-analogue converter for transmission by the transmitter (TX).

11. (Currently amended) The transmitter of eClaim 10, wherein the peak detector is further operable to output ~~pulses of~~ the pulse sequence signal ~~have comprising pulses having~~ a magnitude corresponding to the an amount by which the each peak concerned exceeds the threshold level (C).

12. (Currently amended) The transmitter of eClaim 10, wherein the pulse shaping filter ~~is a~~ comprises an FIR filter.

13. (Currently amended) The transmitter of eClaim 11, wherein the pulse shaping filter ~~is a~~ comprises an FIR filter.